



Gulf of Mexico Harmful Algal Bloom Bulletin

18 December 2006

NOAA Ocean Service

NOAA Satellites and Information Service

Last bulletin: December 14, 2006

Conditions Report

A harmful algal bloom has been identified in patches from southern Pinellas to northern Lee County. No impacts are expected throughout the bloom region today through Wednesday.

Analysis

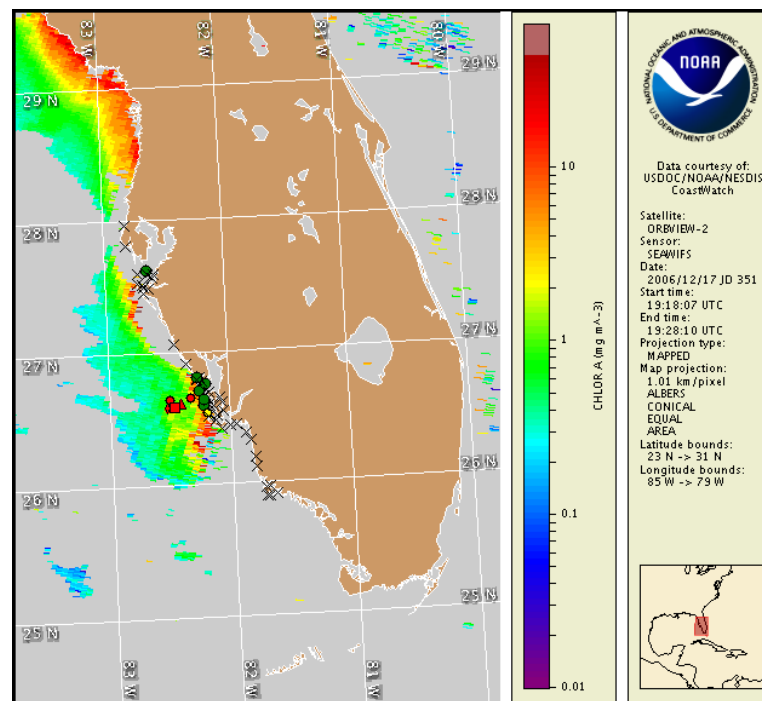
A harmful algal bloom continues to be present in patches alongshore of the SW Florida coast, with remaining concentrations between 'present' and lowa (FWRI, 12/15). In addition, samples collected 5- 17 nm offshore and southwest of Boca Grande, Lee County had low to high concentrations of *K. brevis* (FWRI, 12/1). Although satellite imagery has been predominately obscured by clouds and limits analysis, recent imagery (12/17 shown) indicates chlorophyll levels have decreased overall offshore of Pinellas to Lee Counties. A patch of high chlorophyll is located 11 miles offshore of Sarasota Bay ($<8 \mu\text{g/L}$; $27^{\circ}18'43''\text{N}$, $82^{\circ}48'56''\text{W}$) and 12 miles southwest of Sanibel Island ($<10 \mu\text{g/L}$; $26^{\circ}17'43''\text{N}$, $82^{\circ}14'15''\text{W}$). Continued offshore sampling is recommended, as the bloom affecting portions of southwest Florida was shown to have transported offshore over the past several weeks according to satellite imagery. Upwelling conditions continue to be favorable throughout the weekend; however intensification of the bloom alongshore is unlikely.

In the Florida Keys region FWRI reported not present *K. brevis* samples alongshore of the Keys on 12/15. Satellite imagery has been obscured by clouds and limits analysis. Northeast to easterly winds should minimize further transport of *K. brevis* concentrations closer to shore.

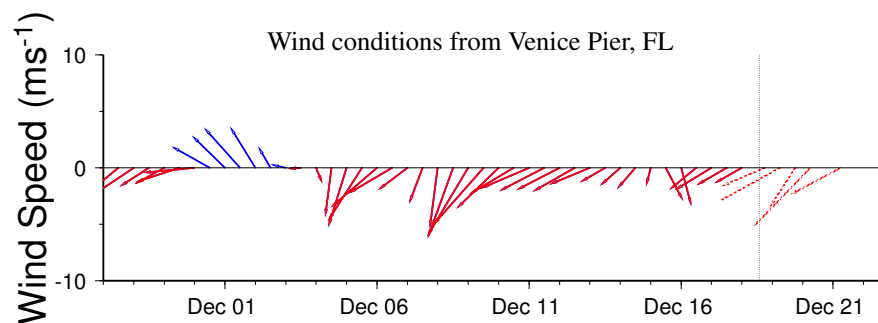
~Fenstermacher & Urizar

Please note the following restrictions on all SeaWiFS imagery derived from CoastWatch.

1. Data are restricted to civil marine applications only; i.e. federal, state, and local government use/distribution is permitted.
2. Image products may be published in newspapers. Any other publishing arrangements must receive GeoEye approval via the CoastWatch Program.



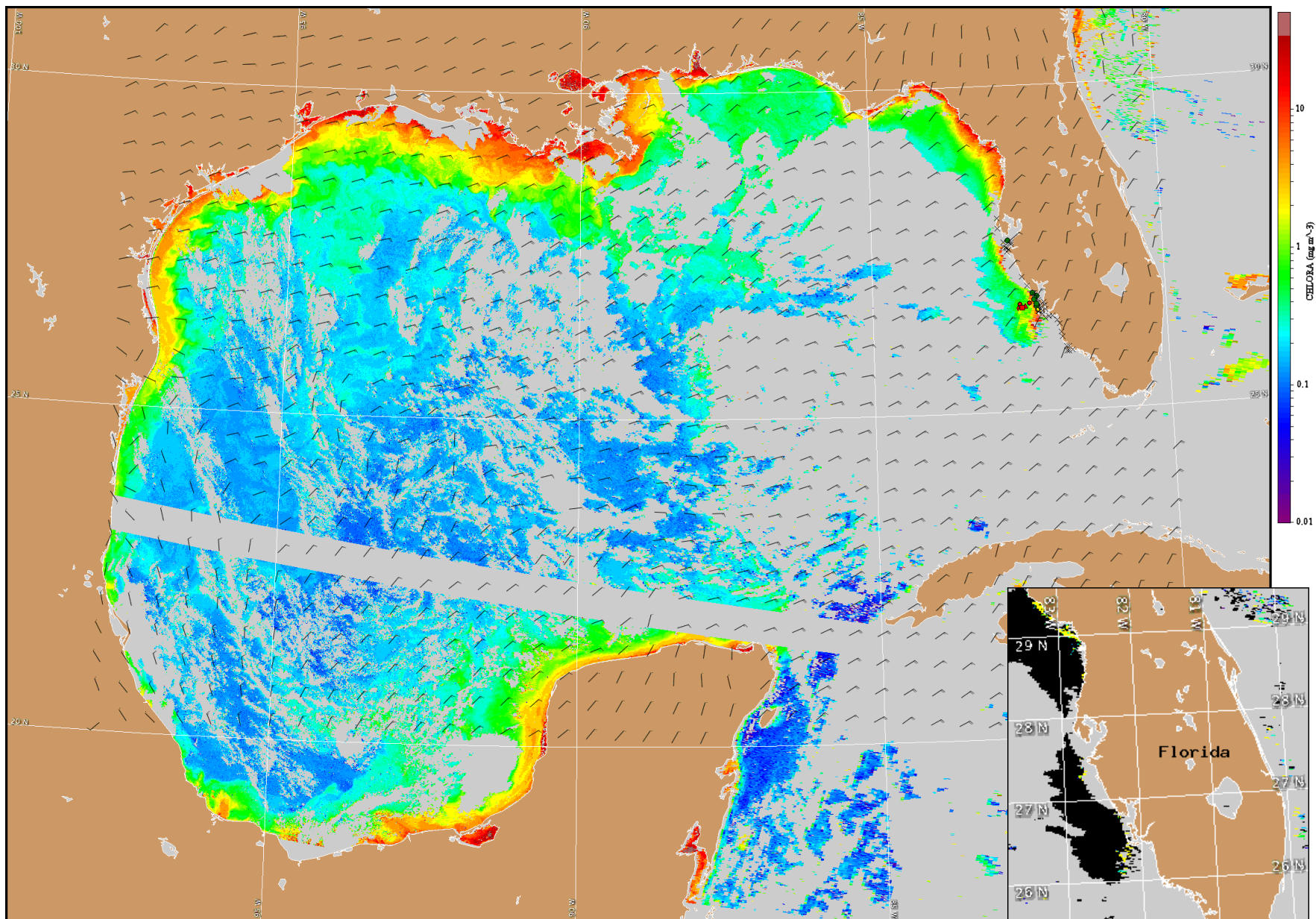
Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration categories and corresponding cell count values from Florida Fish and Wildlife Research Institute. For a key to the cell concentration descriptions, visit <http://research.myfwc.com>. Cell concentration sampling data from December 8-14 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).



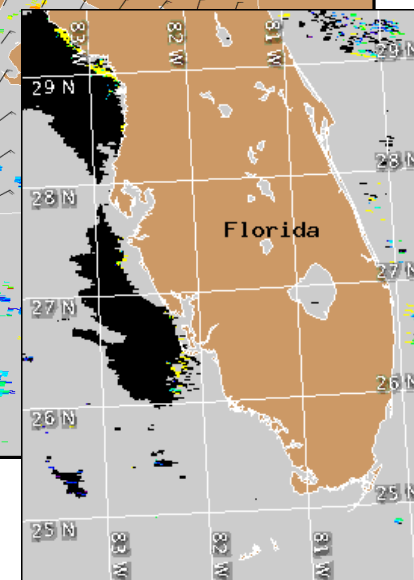
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

SW Florida: Variable northeast to easterly winds today through Wednesday (10-20 knots; 5-10 m/s). Southeast to easterly winds on Thursday (10-15 knots; 5-8 m/s).

Keys: Variable northeast to easterly winds today through Wednesday followed by easterlies on Thursday (15-20 knots; 8-10 m/s).



Satellite chlorophyll image and forecast winds for December 19, 2006 12Z with cell concentration sampling data from December 8-14 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).



Verified HAB areas shown in red. Other bloom areas shown in yellow (see p. 1 analysis for interpretation).

